



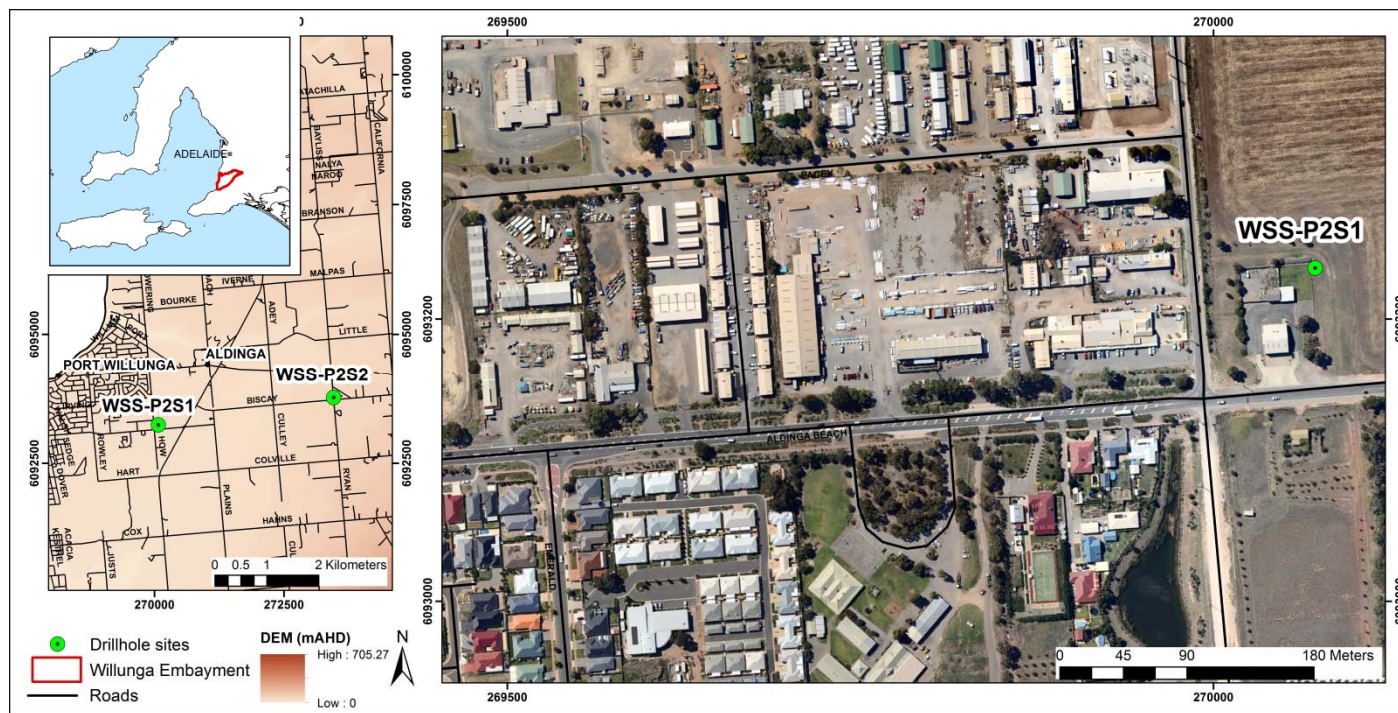
An Australian Government Initiative

Groundwater Education Investment Fund Project

Borehole Infrastructure Report

Borehole Type		Piezometer Monitoring Bore	Location	Willunga Super Science Site
Unique Well ID		WSS-P2S1-1	Installed By	Kangarilla Drilling
Completion Date		29/10/2012	Depth Installed	161 mBGS
Drilled By		Kangarilla Drilling	Depth Drilled	164 mBGS
Monument Type		Concrete gatic cover	Drilled Diameter/Method	200 mm (min)/RTA+RTM
Monument Diameter/Width		365 mm	Screen Depth	158-161 mBGS
T.O.M. offset from G.L. (Top of Open Monument)		0.125 m	Screen Size/Aperture/Type	96 mm/0.5 mm/SST
PVC Casing to T.O.M offset		-0.065 m	Level of Cement/Bentonite	0-156 mBGS
Ground Elevation (mAHD)		22.401	Casing Size/Type	96 mm/PVC
GPS Easting	(MGA-94 Zone 54)	270072	SWL after Development	20.74 mTOC
GPS Northing		6093236	Development Details	Airlift, 1 L/sec for 4 hrs

Project Comments: WSS-P2S1-1 is a single completion piezometer completed in the South Maslin Sands. Five additional piezometers are completed at shallower depths at this site. This is site 1 of seven sites in a transect across the Willunga Basin.



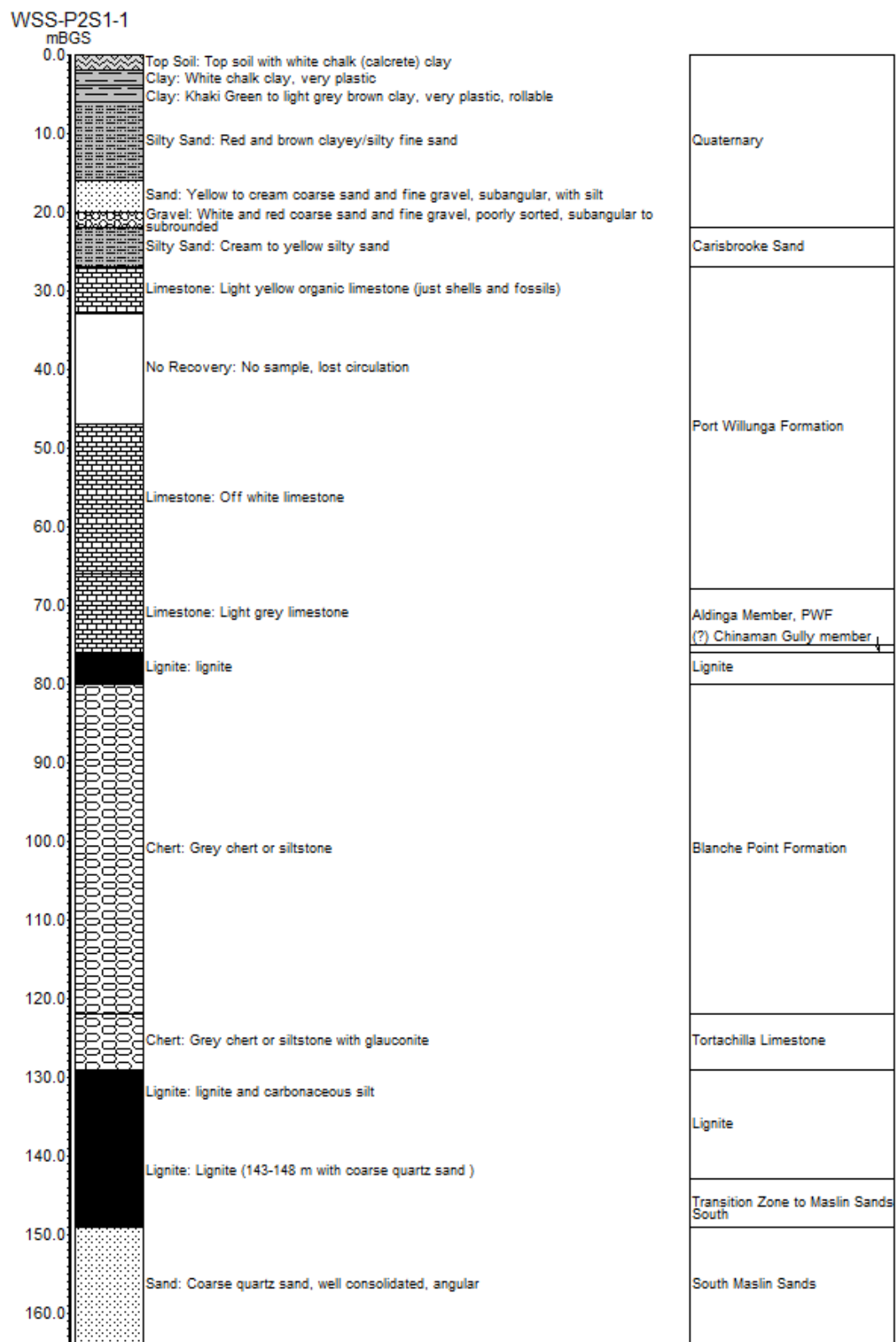
Map of Willunga Super Science Basin Transect Sites

Note* Appendix includes Lithology and Well Completion Logs, Geophysical Logs, Hydraulic Test and Chemical Analysis.

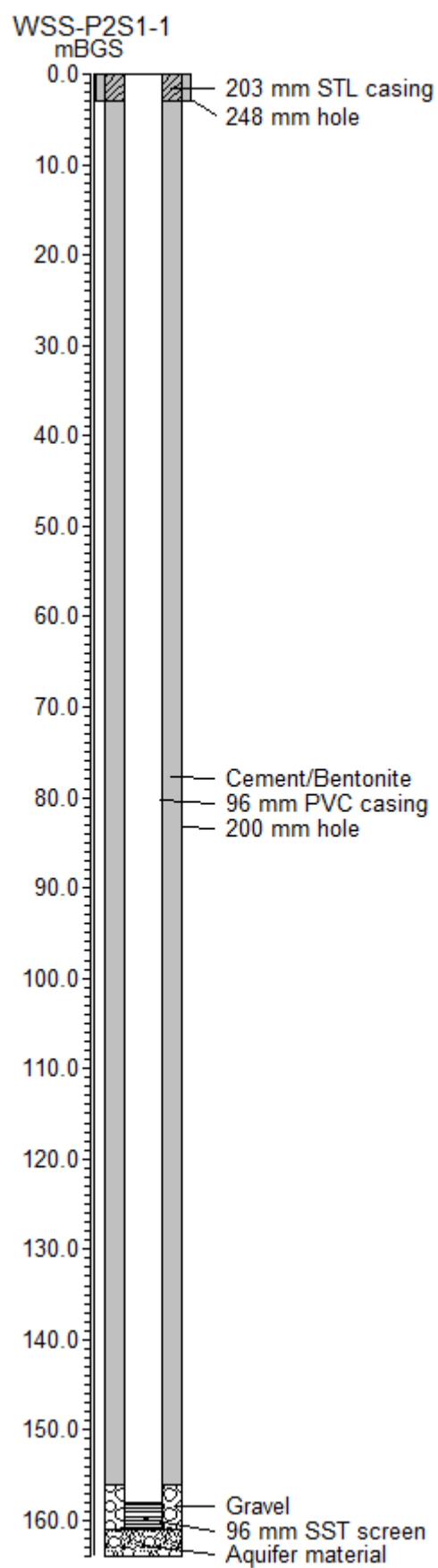
Infrastructure Report prepared by:	Contact Details:	Checked by: Prof Peter Cook
	stephanie.villeneuve@flinders.edu.au Office: 08 8201 2724	

Lithology Log

Lithology was logged for WSS-P2S1-1 by Nico Kruger and Nikola Vasilic, Department of Environment, Water and Natural Resources.

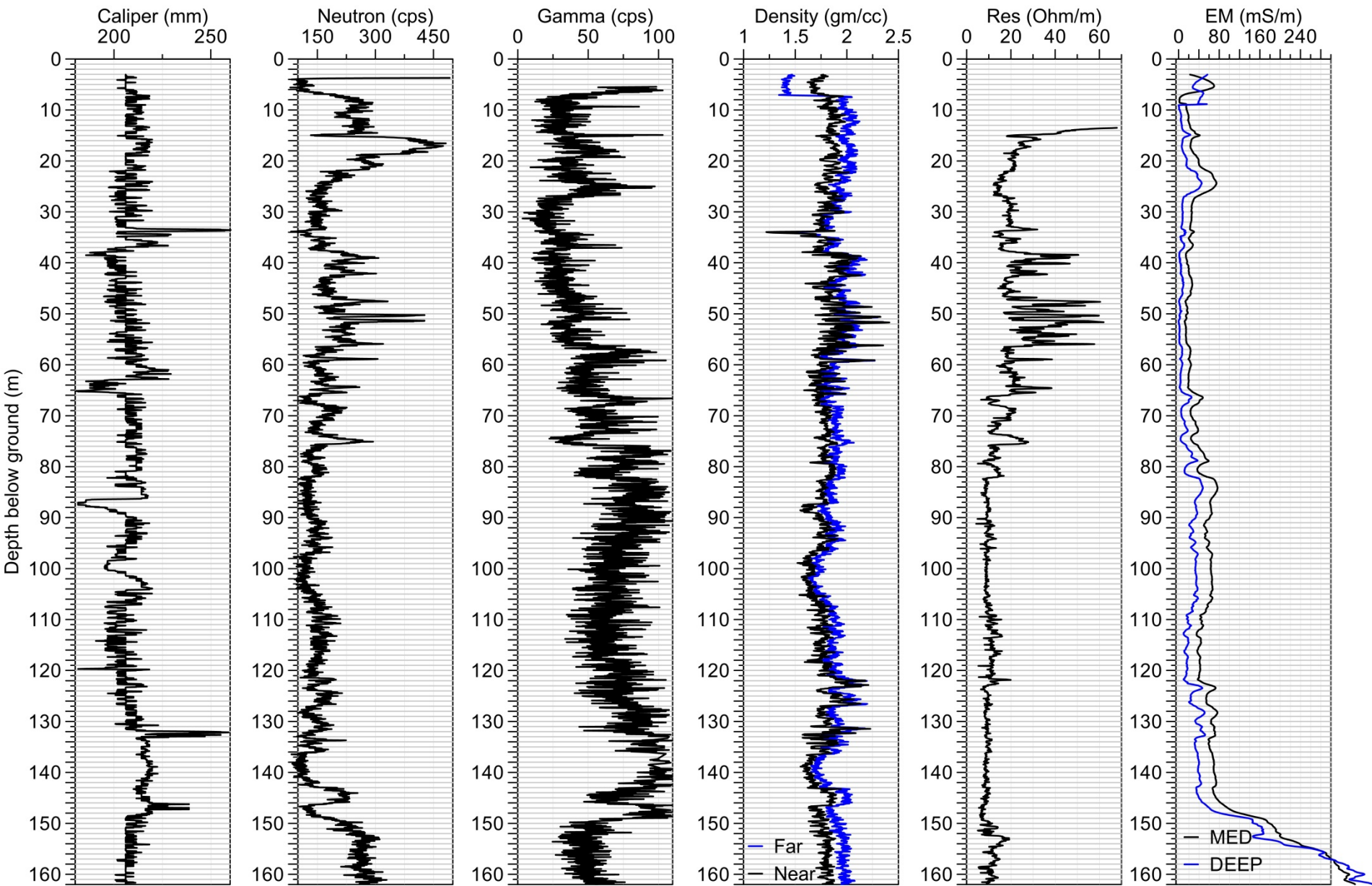


Well Completion Log



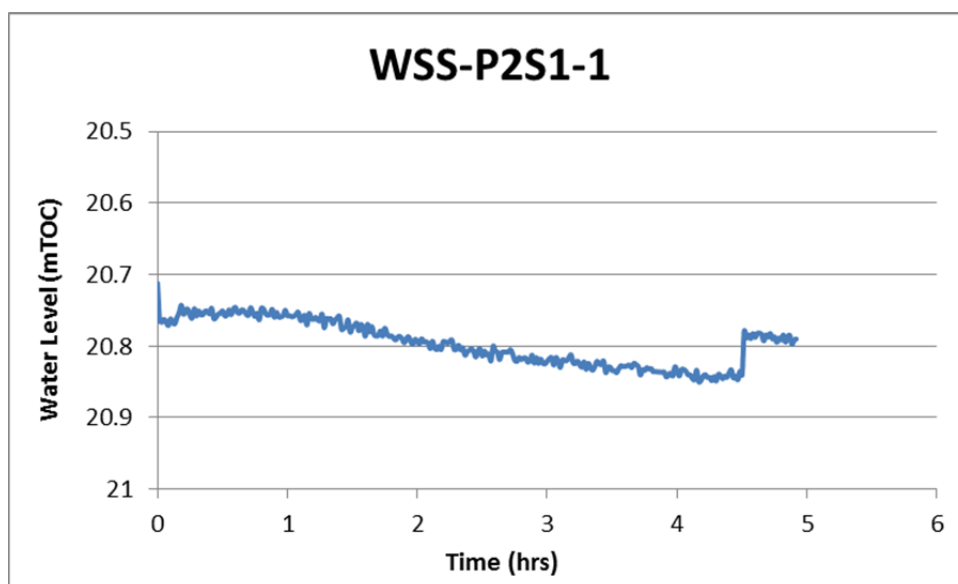
Geophysical Logs

The Department of Environment, Water and Natural Resources conducted geophysical well logging on WSS-P2S1-1.



Pumping Test

A pumping test was performed on piezometer WSS-P2S1-1 on 29/01/2013 with a water level logger and a submersible Grundfos SQ1 pump using a flow rate of 5.6 L/min. The results of the test are presented below. The report author may be contacted for the full data set.



Chemical Analysis

The results of major ion chemistry on WSS-P2S1-1 are presented below, along with chemical parameters measured in the field.

Well ID	Date Sampled	SWL mTOC	Field Parameters				Laboratory Analyses @ CSIRO ASU											
			pH	EC μS/cm	Temp °C	Alkalinity meq/L	pH	E.C. μS/cm	Total Alkalinity meq/L	F ⁻ mg/L	Cl ⁻ mg/L	Br ⁻ mg/L	NO ₃ ⁻ mg/L	SO ₄ ⁼ mg/L	Ca mg/L	K mg/L	Mg mg/L	
WSS-P2S1-1	29/01/2013	20.73	6.29	49788	25.3	6.0	6.8	52200	5.7	<5	20664	63	19	6058	1610	170	1040	
							Na	S	Al	As	B	Cd	Co	Cr	Cu	Fe	Mn	
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
							10600	223	<2.5	<2.5	<5	<2.5	<2.5	<2.5	<2.5	12.5	<2.5	
							Mo	Ni	P	Pb	Sb	Se	Si	Sr	Zn			
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
							<2.5	<2.5	<5	<2.5	<5	<2.5	<2.5	28.9	<2.5			